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10/635,381	08/05/2003	Martin S. Maltz	D/A2290	1288

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EXAMINER	
KAU, STEVEN Y	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/635,381	MALTZ ET AL.	
	Examiner	Art Unit	
	STEVEN KAU	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 December 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1. Continued examination under 37 CFR 1.114 does not apply to an application unless prosecution in the application is closed. If the RCE was accompanied by a reply to a non-final Office action, the reply will be entered and considered under 37 CFR 1.111. If the RCE was not accompanied by a reply, the time period set forth in the last Office action continues to run from the mailing date of that action (see Notice of Improper Request for Continued Examination, mailing date of 8/14/2008).

Response to Amendment

2. Applicant's amendment was received on 12/20/2007, and has been entered and made of record. Claims 1, 2 and 16-22 have been amended. Currently, claims 1-22 are pending.

Response to Remark/Arguments

3. Applicant's arguments with respect to claims 1-22 have been fully considered but are not persuasive.

Regarding section "**Shimizu in view of Mahy**"

Applicant argues that "**The Applicant respectfully disagrees with this assessment. First, the Shimizu reference makes no mention of 'automatic input' in col. 12, lines 43-67 or col. 13, lines 1-4. In fact, the cited material is actually an explanation of fig. 7 which specifically does not require any input. Col. 12 lines 44-46 states '... L, a and b, which are variables indicating the grid**

numbers of a grid point in an L*a*b* space, are all initialized to '0". There simply is no input needed in this example because the values are initialized at 0. Indeed, there is absolutely no mention of input, much less automatic input, anywhere in the cited language", 2nd paragraph, page 8.

In re, the examiner respectfully disagrees. Shimizu discloses a flowchart or an algorithm of Figure 7, where input L*a*b* color values are based on the measurement of a patch outputted from a printer corresponding to CYM color values, which are stored in a table. In other words, the initial L*a*b* color values are inputted directly from a table stored in the system of Figure 18 (col 11, line 65 to col 12, line19). Shimizu further discloses that steps are executed by CPU (col 28, lines 5-47). Thus, L*a*b* color values are not inputted manually, instead, it is an automatic process as discussed in Shimizu's disclosure.

Applicant further argues that "**Further, while Shimizu discusses 'three-dimensional arrays,' the**
Applicant respectfully disagrees that this teaches control of a particular dimensional order. The language is Shimizu clearly limits the reference to three-dimensional orders. As is made clear by the language of claim 10 and Applicant's specification, the 'particular order' is not limited to the three-dimensional case. Applicant's abstract specifically notes dimensions are not limited and may include the two-dimensional case as well", 3rd paragraph, page 8.

In re, the examiner disagrees with the argument. Applicant's argument that the references fail to show the feature of "**the 'particular order' is not limited to the three-dimensional**", which applicant relies is not recited in the rejected claim(s). Although the

claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns,* 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant continued to argue that "**The Applicant also respectfully disagrees that use of a color sensor to**
determine which color has attained a gamut limit has been taught. The first evidence of this is the fact the Examiner has cited two separate sections of the Shimizu reference in arguing this single point of Applicant's invention.
First, the Examiner cites col. 11, lines 65-67 and col. 12, lines 1-19 of Shimizu arguing this teaches use of a color sensor. This relates to the adoption by Shimizu of another patented method for creating color conversion tables. The Applicant is not asserting use of a color sensor in any context is unique. Indeed, color sensors are most assuredly used in many different types of applications. Rather, the Applicant is using the color sensor to determine which color value among the plurality of color values has reached the gamut limit, and not to create a color conversion table. It is important to understand that the entire process being described by the cited material and Fig. 7 of the referenced patent is being used to create a reference table. This is not the same as using a color sensor to determine if a color has reached the gamut limit. Indeed, the reference highlights the fact that the present claim is different because no table is created", last paragraph, page 8.

In re, the examiner disagrees the argument. It is well known in the art that “color senor" is used for measuring color. Shimizu discusses in order to determine the shortest distance from the boundary of color gamut, CYM color values are measured and stored in a table. The L*a*b* color input values from the table are then used as the initial input value for color conversion process. Thus, the main purpose of (using a color sensor) is

for determining the shortest distance from the boundary, and then for the color conversion process. Without a set of L*a*b* input color value, how a color conversion process be performed?

The applicant continued to argues that "**It is noteworthy that the words 'in general' preface the language the Examiner has cited (col. 2, lines 19-32) as teaching a transformation module for automatically reducing said particular dimensional order based on determining which color value among said plurality of color values has attained said gamut limit. Col. 2, lines 19-32 of Mahy simply constitutes a statement of the fact that a mathematical space of n dimension's can be defined by its boundaries and that said boundaries have a dimension n-1. This surely does not teach, as the Examiner suggests, using a transformation module to determine colors at or beyond a gamut limit. The language cited by the examiner is, in essence, a scholarly lecture on the meaning of "color gamut" and the geometric properties of mathematical spaces, followed by a conclusion that this language teaches or suggests use of a transformation to determine colors that have reached a gamut limit. The fact that the word 'transformation' appears in the reference is not sufficient to teach a transformation module as taught by Applicant's present invention. In the context of Mahy "transformation" is only being used as part of the definition of a color gamut**", 2nd paragraph, page 9.

In re, the examiner does not agree with the argument. Mahy's teaching, as a whole, is a mathematical model for calculating or determining color gamut –"knowledge of this is important in color reproduction, in order to decide how colors outside the color gamut will be reproduction" (col 7, lines 45-48). Mahy discloses the relationship between n-ink process and m-ink process, which m<n (col 1, line 49 to col 2, line 60). Due to different colorant limitations, n-ink process transformation will produce different

results as shown in Figures 3 & 4, col 14, line 50 to col 15, line 14. Thus, “a transform module” must be used for n-ink process transformation process.

Finally, the applicant argues that “**Finally, per the decision in KSR Int'l v. Teleflex Inc., it is not enough that the Examiner identify all elements of Applicant's invention in past references (which the Applicant suggests the Examiner has still failed to do); the Examiner must also explicitly explain the reason one of ordinary skill in the art would have combined the referenced inventions in the way they are taught in Applicant's invention, The Examiner has cited col, 4, lines 17-43 suggesting this discussion explains the motivation for the combination of Shimizu and Mahy as a means for providing each and every claim limitation of Applicant's claims, First, neither Applicant's invention nor Shimizu ever mentions ‘lightness levels’ as described by Mahy, This suggests there is no motivation to combine May with Shimizu as a basis for providing each and every claim limitation of Applicant's invention, In addition, the Examiner has failed to explain how the combination of elements supposedly taught by Mahy would improve the Shimizu invention, Specifically, there is no explanation of how a transformation module for automatically reducing a particular dimensional order based on determining which color value among said plurality of color values has attained said gamut limit, which the examiner claimed is taught by Mahy, would improve the Shimizu invention**”, last paragraph, pages 9-10.

In re, the examiner disagrees with this assertion. Shimizu discloses a method and a system to convert (or control) an L*a*b* value of a certain color which is outside a target color gamut (Abstract, Figures 8A-B, and col 14, lines 57 to col 15, line 40, Shimizu), and Mahy discloses how to use mathematical models to calculate or determine color gamut. The examiner also disagrees the statement that “**First, neither Applicant's invention nor Shimizu ever mentions ‘lightness levels’ as described by Mahy**”. First,

both the applicant (e.g. Figures 1, 2 & 4, Pars. 37-42) and Shimizu (e.g. Figures 5-17, col 10, lines 62-67) use CIE L*a*b* values for color gamut control. It is well known in the art that the value L* in CIE L*a*b* coordinate represents for the lightness of the color. Thus, applicant's statement "**neither Applicant's invention nor Shimizu ever mentions 'lightness levels' as described by Mahy**" is NOT persuasive. The motivation of combining Shimizu's teaching with Mahy's reference is obvious for obtaining a better, or accurate result and the mathematical model provided by Mahy could be implemented into Shimizu's system of Figures 18 & 19 by one ordinary skill in the art at the time the invention was made and predictable result is achievable.

Thus, the examiner meets the three basic criteria in establish a *prima facie* case of obviousness in this application prosecution:

1. some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings;

2. a reasonable expectation of success; and

3. the teaching or suggestion of all the claim limitations by the prior art reference (or references when combined) (MPEP 2143).

As discuss above, same rational basis is equally applied to the arguments with regard to the dependent claims.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 3-5, 10-16 and 19-22 rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu et al (Shimizu) (US 7,167,277) in view of Mahy (US 5,832,109).

Regarding **claim 10**.

Shimizu discloses a system (**Figs. 18 & 19, col 28, lines 53-55**), comprising: a plurality of color values (**such as L255*, a255* & b255* value, corresponding to CMY color data value, col 2, lines 28-59**) automatically provided as input to an image processing device (**e.g. L*a*b* values based on the measurement of a patch outputted from the printer corresponding to CYM values are as input initial value; since the L*a*b* values obtained and inputted in the process are not manually performed, thus data is automatically provided as input to the image processing device shown in Figs. 18 & 19; see Figs. 5 & 7, col 11, line 65 to col 12, line 19 for full detail**), wherein said image processing device is under a control of a particular dimensional order (**e.g. processing in three three-dimensional arrays, col 13, lines 51-65**); a color sensor (**e.g. measurement of L*a*b* values indicates that a color sensor must be used for color measuring, col 11, lines 65-67 & col 12, lines 1-19**)

for dynamically determining which color value among said plurality of color values has attained a gamut limit (**e.g. Shimizu discloses a flowchart or algorithm which has a steps to determine shortest distance from boundary of color gamut in Figs. 7 & 9, judging whether color value is near the color gamut boundary which is actively or dynamically performed, col 13, lines 5-37 & col 15, lines 41-66**).

Shimizu does not explicitly disclose that a transformation module for automatically reducing said particular dimensional order based on determining which color value among said plurality of color values has attained said gamut limit, thereby providing improved control for colors that are located external to said gamut.

Mahy teaches that a transformation module for automatically reducing said particular dimensional order based on determining which color value among said plurality of color values has attained said gamut limit (**e.g. Mahy discloses an example mathematical model of 3-ink process with one color value c_1 reaches its limit at 0, dimensional order of 3-ink process is automatically reduced to 2-ink process because an n-ink process is completely characterized by its colorant gamut with a number of colorant limitations, col 14, lines 50-64 & col 1, lines 49-58**), thereby providing improved control for colors that are located external to said gamut (**col 7, lines 45-48**).

Having a system of Shimizu' 277 reference and then given the well-established teaching of Mahy' 109 reference, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the service portal system of Shimizu' 277 reference to include a transformation module for automatically reducing

said particular dimensional order based on determining which color value among said plurality of color values has attained said gamut limit, thereby providing improved control for colors that are located external to said gamut as taught by Mahy' 109 reference since doing so would improve the control of an L*a*b* value of a certain color which is outside a target color gamut, and further the mathematical model provided by Mahy' 109 could be implemented for one another with predictable results.

Regarding **claim 11**.

Dependent claim 11 recites identical features as claim 10. Thus, arguments similar to that presented above for claim 10 are also equally applicable to claim 11.

Regarding **claim 12.**

Shimizu teaches wherein said particular dimensional order comprises a three-dimensional order (**col 12, lines 30-42**).

Regarding **claim 13.**

Shimizu differs from claim 13, in that he does not teach wherein said transformation module further comprises a transformation module for reducing said three-dimensional order to a two-dimensional order.

Mahy teaches wherein said transformation module further comprises a transformation module for reducing said three-dimensional order to a two-dimensional order (**col 12, lines 19-32**).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Shimizu to include a said transformation module further comprises a transformation module for reducing said three-dimensional order to

a two-dimensional order taught by Mahy because it helps to determine the exact boundaries of the color gamut per lightness level from a set of discrete points (col 4, lines 17-43). Therefore, by combining Mahy with Shimizu, a predictable success of controlling out-of-gamut memory and index color can be achieved.

Regarding **claim 14.**

Shimizu differs from claim 14, in that he does not teaches wherein said transformation module reduces said three-dimensional order to said two-dimensional order in response to determining which colors among said plurality of colors have attained said gamut limit.

Mahy teaches wherein said transformation module reduces said three-dimensional order to said two-dimensional order in response to determining which colors among said plurality of colors have attained said gamut limit (**Fig. 3, col 12, lines 19-32 and col 14, lines 34-64**).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Shimizu to include a said transformation module reduces said three-dimensional order to said two-dimensional order in response to determining which colors among said plurality of colors have attained said gamut limit taught by Mahy because it helps to determine the exact boundaries of the color gamut per lightness level from a set of discrete points (col 4, lines 17-43). Therefore, by combining Shimizu with Mahy, a predictable success of controlling out-of-gamut memory and index color can be achieved.

Regarding **claim 15.**

Shimizu differs from claim 15, in that he does not teaches wherein said transformation module further comprises a transformation module for reducing said three-dimensional order to a one-dimensional order

Mahy teaches wherein said transformation module further comprises a transformation module for reducing said three-dimensional order to a one-dimensional order (Mahy discloses an mathematical model showing how a 3-dimensional order is reduced to 1-dimensional order, col 12, lines 36-64).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Shimizu to include a said transformation module further comprises a transformation module for reducing said three-dimensional order to a one-dimensional order taught by Mahy because it helps to determine the exact boundaries of the color gamut per lightness level from a set of discrete points (col 4, lines 17-43). Therefore, by combining Shimizu with Mahy, a predictable success of controlling out-of-gamut memory and index color can be achieved.

Regarding **claim 16,** recite identical features as claim 15. Thus, arguments similar to that presented above for claim 15 are also equally applicable to claim 16.

Regarding **claim 19,** Shimizu teaches a color rendering device associated with said transformation module and wherein said transformation module is integrated with said image processing device **(Figs. 18 & 19, col 28, lines 53-55**).

Regarding **claim 20,** Shimizu an iterative controller **(CPU 20 of Fig. 18 & PC 31 of Fig. 19**) whose iterative output is input to said color rendering device **(Input/Output Device 25 of Fig. 18 & Printer 32 of Fig. 19)**, such that said iterative output of said

iterative controller reflects a plurality of compensated color values requiring correction for rendering variations thereof (**Fig. 19, col 28, lines 8-67 & col 29, lines 1-23**).

Regarding **claim 21,** Shimizu teaches wherein said color rendering device comprises a printer (**Printer 32 of Fig. 19**).

Regarding **claim 22,** Shimizu teaches wherein said color rendering device comprises a photocopy machine (**Input/Output Device 25 of Fig. 18**).

Regarding **claim 1**, recite identical features as claim 10, except claim 1 is a method claim. Thus, arguments similar to that presented above for claim 10 are also equally applicable to claim 1.

Regarding **claim 3**, recite identical features as claim 12, except claim 3 is a method claim. Thus, arguments similar to that presented above for claim 12 are also equally applicable to claim 3.

Regarding **claim 4**, recite identical features as claim 13, except claim 4 is a method claim. Thus, arguments similar to that presented above for claim 13 are also equally applicable to claim 4.

Regarding **claim 5**, recite identical features as claim 15, except claim 5 is a method claim. Thus, arguments similar to that presented above for claim 15 are also equally applicable to claim 5.

6. Claims 2, 6-8 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu et al (Shimizu) (US 7,167,277) in view of Mahy (US 5,832,109) as applied to claims 1 and 10, and further in view of Holub (US 6,750,992).

Regarding **claims 17 and 18,** Shimizu and Mahy differ from claims 17 and 18, in that both Shimizu and Mahy do not teach wherein said color sensor comprises an offline sensor and an inline sensor.

Holub teaches wherein said color sensor comprises an offline sensor (**Fig. 3A, col 11, lines 66-67 & col 12, lines 1-19)** and an inline sensor **(Fig. 3B, col 15, lines 42-67 & col 16, lines 1-24**).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Shimizu and Mahy to include an offline sensor and an inline sensor taught by Holub to improve communication, control and quality of color reproduction (**col 3, lines 3-15**). Therefore, by combining Shimizu and Mahy with Holub, a predictable success of controlling out-of-gamut memory and index color can be achieved.

Regarding **claims 6, 7 and 8**, recite identical features as claims 17 & 18, except claims 6, 7 and 8 are method claims. Thus, arguments similar to that presented above for claims 17 & 18 are also equally applicable to claims 6, 7 and 8.

Regarding **claim 2**, Shimizu discloses dynamically determining utilizing a color sensor which color among a plurality of three colors has attained said gamut limit (**e.g. Shimizu discloses a flowchart or algorithm which has a steps to determine shortest distance from boundary of color gamut in Figs. 7 & 9, judging whether color value is near the color gamut boundary which is actively or dynamically performed, col 13, lines 5-37 & col 15, lines 41-66**), wherein said plurality of three colors comprises cyan, magenta, and yellow (**CMY- C for Cyan, M for Magenta & Y**

for Yellow, col 11, line65 to col 12, line19) and wherein said color sensor (**e.g. measurement of L*a*b* values indicates that a color sensor must be used for color measuring, col 11, lines 65-67 & col 12, lines 1-19**).

Shimizu does not explicitly disclose the color sensor comprises an offline sensor or an inline sensor or a combination thereof.

Holub teaches wherein said color sensor comprises an offline sensor (**Fig. 3A, col 11, lines 66-67 & col 12, lines 1-19)** and an inline sensor **(Fig. 3B, col 15, lines 42-67 & col 16, lines 1-24**).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Shimizu and Mahy to include color sensor comprises an offline sensor or an inline sensor or a combination thereof as taught by Holub to improve communication, control and quality of color reproduction (**col 3, lines 3-15**). Therefore, by combining Shimizu and Mahy with Holub, a predictable success of controlling out-of-gamut memory and index color can be achieved.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu et al (Shimizu) (US 7,167,277) in view of Mahy (US 5,832,109), and further in view of Holub (US 6,750,992).

Regarding **claim 9**, Shimizu teaches a method, comprising: automatically providing a plurality of color values as input to an image processing device (**Figs. 18 & 19, col 28, lines 53-55**), wherein said image processing device is under a control of a

three-dimensional order **(S21 of Fig. 7 and col 12, lines 30-42)**; color among a plurality of three colors has attained said gamut limit **(Figs. 6A-B & 8A-B, col 14, line 39 to col 16, line 34)**, wherein said plurality of three colors comprises cyan, magenta, and yellow **(S21 of Fig. 7, col 11, line 65 to col 12, line 19)**.

Shimizu differs from claim 9, in that he does not teach that dynamically determining utilizing a color sensor, and transforming said three-dimensional order, in response to dynamically determining which color value among said plurality of three color values has attained said gamut limit; and automatically reducing said three-dimensional order, thereby providing improved control for colors that are located external to said gamut.

Mahy teaches transforming said three-dimensional order, in response to dynamically determining which color value among said plurality of three color values has attained said gamut limit **(e.g. Mahy discloses an example mathematical model of 3-ink process with one color value c_1 reaches its limit at 0, dimensional order of 3-ink process is automatically reduced to 2-ink process because an n-ink process is completely characterized by its colorant gamut with a number of colorant limitations, col 14, lines 34-64 & col 1, lines 49-58)**; and automatically reducing said three-dimensional order, thereby providing improved control for colors that are located external to said gamut **(Mahy discloses mathematical model of reducing three-dimensional order in col 12, lines 36-64 for improve control of for colors that outside the color gamut as shown in Figs. 11B & 12 B)**.

Holub teaches that dynamically determining utilizing a color sensor (**Figs. 3A & 3B, col 11, lines 66-67 & col 12, lines 1-19, and col 15, lines 42-67 & col 16, lines 1-24**).

Having a system of Shimizu' 277 reference and then given the well-established teaching of Mahy' 109 reference, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the service portal system of Shimizu' 277 reference to include transforming said three-dimensional order, in response to dynamically determining which color value among said plurality of three color values has attained said gamut limit and automatically reducing said three-dimensional order, thereby providing improved control for colors that are located external to said gamut as taught by Mahy' 109 reference since doing so would improve the control of an L*a*b* value of a certain color which is outside a target color gamut, and further the mathematical model provided by Mahy' 109 could be implemented for one another with predictable results; then to combine Shimizu and Mahy with Holub to include the concept of dynamically determining utilizing a color sensor taught by Holub to improve communication, control and quality of color reproduction (col 3, lines 3-15). Therefore, as a result of combining Shimizu and Mahy with Holub, a predictable success of controlling out-of-gamut memory and index color can be achieved.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Kau whose telephone number is 571-270-1120 and fax number is 571-270-2120. The examiner can normally be reached on Monday to Friday, from 8:30 am -5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on 571-272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Steven Kau/
Examiner, Art Unit 2625
8/20/2008

/King Y. Poon/
Supervisory Patent Examiner, Art Unit 2625